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amphibians, the reptiles, birds, the bony fishes, and lastly the mammals, with man, "the last and greatest winner in life's races."

The story is most skillfully told; it will charm the grown-up naturalist, and, as we have reason to know, interest an intelligent lad. The wood-cuts, some of which we reproduce, are by Mr. Carreras, and are geological restorations of unusual excellence. The frontispiece, illustrating the phosphorescent fishes, is by Mr. Smit. The authoress acknowledges the aid of Professor W. Kitchen Parker, Mr. Alfred R. Wallace and others, and her work while very readable is also reliable. We can see no points open to serious criticism.

BAUME'S ODONTOLOGICAL RESEARCHES[1]—This is not a systematic work on odontology, but a series of chapters on the general nature of teeth, containing the results of the author's original researches, and well illustrated by numerous wood-cuts. The first part is an attempt at a developmental history of the teeth. After stating the nature of the theory of natural selection, the author enters into an elaborate general description of the dermal armor of vertebrates, which is followed by descriptions of the placoid scales and teeth, and the teeth of other fishes, as well as those of amphibians and reptiles, and a section on the development of mammalian teeth. The following subjects are then discussed: the reduction of the teeth; the strengthening in their sockets of mammalian teeth, especially the relations between the teeth and bones; the hard tissues of teeth; the physiology of dental substance; the ever-growing teeth (wurzellose zähne) of mammals, *i. e.*, those with an exposed pulp, as the incisors of rodents, and the tusks of the elephant; the formation of the crown and root; the specialized teeth; the transformation of tooth-forms; the milk-teeth; the diphyodont semblance of mammals; the third dentition; the typical number of mammalian teeth of the present time; the last rudiments of lost teeth in the jaws of other mammals, and finally he discusses teeth and their organism.

The second part is of more practical interest, discussing the defects of the hard parts.

RECENT BOOKS AND PAMPHLETS.

A. S. Packard, Jr.—American Science Series, Briefer Course, Zoölogy. H. Holt & Co. 1883. 12°, pp. 334.

Cragin, F. W.—A contribution to the History of the Fresh-water Copepoda. Ext. Trans. Kan. Acad. Sci., May, 1883. From the author.

Harger, Oscar.—Report on the Isopoda. Bull. Mus. Comp. Zoöl., Vol. XI, No. IV. Results of dredging on E. coast U. S., 1880. Sept., 1883. From the author.

Agassiz, Alex.—The Porpitidæ and Velellidæ. Mem. Mus. Camp. Zoöl., Vol. VIII, No. 2. Surface fauna of the Gulf Stream. July, 1883. From the author.

Kunz, G. F.—American Gems and Precious Stones. Ext. from "The Mineral Resources of the U. S." Washington, 1883. From the author.

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[1] *Odontological Forschungen.* Von ROBERT BAUME. Leipzig, Verlag von Arthur Felix, 1882. 8vo, pp. 307, 191.

Williams, Alb.—The Mineral Resources of the United States. Washington, 1883. From the author.

Clarke, W. H.—Horses' Teeth. N. Y., W. R. Jenkins. From the publisher.

Shufeldt, R. W.—Observations upon the Osteology of *Podasocys montanus*. Ext. Jour. Anat. and Physiology. Also, Observations on the Habits of the American Chameleon (*Anolis principalis*). From the author.

Barrois, Chas.—Recherches sur les Terrains Anciens des Asturies et de la Galice. Planches et Texte. Lille, 1882. From the author.

Powell, J. W.—Annual Report of the Secretary of the Interior for the year ended June 30, 1881, Vol. III. Washington, 1882. From the department.

Winchell, Alex.—World-life, or Comparative Geology. Chicago, Griggs & Co., 1883. From the publishers.

Worthen, A. H.; St. John, Orestes; Miller, S. A.—Geological Survey of Illinois, Vol. VII. Geology, by A. H. Worthen; Palæontology, by A. H. Worthen, Orestes St. John and S. A. Miller. Boston, May, 1883. From A. H. Worthen.

Fewkes, W.—On a few Medusæ from the Bermudas. Bull. Mus. Comp. Zoöl., Vol. XI, No. 3. Aug., 1883. From the author.

Ashburner, Chas. A., and Winslow, A.—New method for estimating the contents of highly plicated Coal beds, as applied to the Anthracite fields of Pennsylvania.

Pohlman, Jul.—On the Origin of the eastern end of Lake Erie. From the author.

Scudder, S. H.—The fossil White Ants of Colorado. Ext. Proc. Amer. Acad. Arts and Sciences, 1833. From the author.

Clevenger, S. V.—Report on the Recent Appearances observed post mortem in a case of Delirium Grave. From the author.

Smucker, I.—Mound-builders' Works, near Newark, Ohio. From the author.

Dupont, M. E.—Observations sur une note récente de M. P. J. Van Beneden concernant la découverte des ossements de Bernissart. Ext. Bull. Acad. Roy. de Belg., 1883. From the author.

Ritch, W. G.—Illustrated New Mexico, 1883.

Nipher, F. E.—On certain Problems in Refraction.

——Magnetic Survey of Missouri. Fourth Annual Report, 1882. Both from the Trans. St. Louis Acad. of Science, Vol. IV.

——The American Trotting Horse.

——On a new form of Lantern Galvanometer. Both from the Amer. Jour. Sci. and Arts.

——Choice and Chance, a lecture delivered before the Kansas Acad. of Science, 1880. All from the author.

Wadsworth, J. L. R., and Nipher, F. E.—The Tornado of April 14, 1879. Ext. Trans. Acad. of Sci. St. Louis, Vol. IV. From the authors.

Geikie, Arch.—On the supposed Pre-cambrian rocks of St. David's. Ext. Quarterly Journ. Geol. Soc., Aug., 1883. From the author.

Agassiz, Alex.—Selections from Embryological Monographs. II. Echinodermata. July, 1883. From the author.

Crosby, W. O.—Origin of Continents. Ext. Geol. Mag., Decade II, Vol. X, June, 1883.

——On the Mountains of Eastern Cuba.

——On the Classification and Origin of Joint-structures. Ext. Proc. Bost. Soc. Nat. Hist., 1882. All from the author.

Coppi, Fran.—Osservazioni Malacologiche circa la *Nassa semistriata* e *N. costulata*. From the author.

Baird, S. F.—Annual Report of the Board of Regents of the Smithsonian Institution. Washington, 1883. From the department.

Hayden, F. V., St. John, O.; Packard, A. S., Jr.; White, C. A.; Scudder, S. H.; Shufeldt, R. W.—Twelfth Annual Report of the U. S. Geol. and Geog. Survey of the Territories. Rep. of Progress of the Exploration in Wyoming and Idaho. Part I. Palæontology, by C. A. White; Geology, by Orestes St. John; Zoölogy, by A. S. Packard, Jr.

Hayden, F. V., Holmes, W. H., Peale, A. C.—Ditto. Part II. Yellowstone National Park.

Hayden, F. V.—Maps and Panoramas of Twelfth Annual Report U. S. Geol. and Geog. Surv. Washington, 1883. From the department.

Calvin, S.—On the fauna found at Lime creek, Iowa. Ext. Amer. Jour. Science. From the author.

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GENERAL NOTES.

GEOGRAPHY AND TRAVELS.[1]

America.—The Athabasca fur district, acccording to the Rev. E. Petitot, contains large areas of fertile ground capable of supporting a considerable population. One of these areas is the delta formed by the mouths of the Athabasca and Peace rivers, at their entrance into Athabasca lake. Between Egg river, by which the Peace river enters the lake, and Duck portage on the Slave river, is an immense plain, intersected by rivulets and by the openings from the Peace to the Slave rivers. This delta is comparable in fertility with that of the Comargue in Provence. Besides these deltas, the zone of natural prairie along the Rocky mountains from the Upper Saskatschewan to the Hay river, comprises every condition necessary for settlement.

The Athabasca rises in a little lake at the foot of Mt. Brown (16,000 feet). Its course before entering Athabasca lake must be 500 to 600 miles. The passage between Athabasca and Great Slave lakes, known as Slave river, is 240 miles long, while the Mackenzie, as the river is called between the Great Slave lake and the ocean, is about 1045 miles in length. On the Athabasca proper, near the confluence of the Clear-water, is a chain of little volcanic cones, and in this district "boucanes," or vents, giving forth smoke and fire, abound. These are usually found on the line of deposits of incompletely carbonized lignite. Where the Athabasca meets Birch or Bark mountains there is a cañon some twenty-five to twenty-eight leagues long, called the Great Rapid, followed by several other rapids. There is no fall, but a rapid, flat sheet of water, obstructed by enormous boulders. At this part erosion has detached from the rocks a multitude of lenticular concretions varying from the size of a button to that of a large boat. Fossils abound in the shelly limestone that alternates with the bituminous schists.

Lake Athabasca, though the smallest of the great chain of lakes that stretches from the Gulf of St. Lawrence to the Arctic, is 230 miles long by twenty wide. Its bed is deep, and its banks granitic on three sides; but there are sandy or muddy deposits on its southern shore. Its northern side is wholly sterile and rocky, affording food to nothing but caribou.

M. Petitot's paper and map correct four geographical errors.

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[1] This department is edited by W. N. Lockington, Philadelphia.